Contribution ID: **58** Type: **oral**

Broadband Intense THz Fields from Mid-IR Laser-Driven Plasma

Tuesday 2 July 2019 11:45 (15 minutes)

We report on intense THz generation in two-color laser filaments driven by 3.9 μm pulses. The resulting extraordinary conversion efficiency of 2.34% is more than one order of magnitude higher as compared to conventional NIR drivers. The generated THz pulse energy of 0.185-mJ is sufficient for nonlinear perturbation of electro-optical crystals.

Authors: KOULOUKLIDIS, Anastasios (FORTH-IESL); GOLLNER, Claudia (TU Wien); SHUMAKOVA, Valentina (TU Wien); FEDOROV, Vladimir (Texas AM University at Qatar, P.N. Lebedev Physical Institute of the Russian Academy of Sciences); AUDRIUS, Pugzlys (TU Wien, Center for Physical Sciences & Technology); BALTUSKA, Andrius (TU Wien, Center for Physical Sciences & Technology); TZORTZAKIS, Stelios (FORTH-IESL, Texas AM University at Qatar, University of Crete)

Presenter: GOLLNER, Claudia (TU Wien)

Session Classification: New installations and next generation drivers for ultrashort XUV radiation